

AVIATION WEEK

A McGRAW-HILL PUBLICATION

MARCH 15, 1948

CURTISS PROPELLERS BRING SERVICE-PROVED ADVANTAGES TO
Boeing Stratocruisers



► CURTISS brings to Boeing Stratocruisers many propeller advancements—each **service-proved** . . . each **soundly designed** to meet every demand of modern airline operation.

► Curtiss **pioneered** the development and application of hollow steel blades, automatic synchronization, reverse pitch and many other now generally accepted improvements in propeller design. The Curtiss Propeller is the **only** reversing propeller with thousands of flight hours behind it . . . the **only** reversing propeller **proved in service**.

► Curtiss Propellers will be used on Boeing Stratocruisers for such famous airlines as American Overseas Airlines, Scandinavian Airlines System, and United Airlines.



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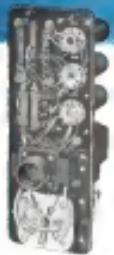


SIMPLE, BUT ENGINEERED Right

The simplicity of Honeywell's Turbine Supercharger is a typical example of how important improvements grow out of amplification that's backed by sound, practical engineering.

Focusing world on every important detail, Honeywell Creative Engineers designed the traditional, lowered supercharger case. The transformer and Resistor-Condenser components are hermetically sealed and shielded with metal spray. Therm and other heat generating units are mounted in separate enclosures outside the chassis. Result: better heat dissipation, more protection from dust and dirt, less radio interference and greater resistance to boundary and temperature extremes.

Here again, as with the Honeywell electronic Fuel Gages and Autopilots, is no corner where Creative Engineering leaves behinds that can be escape used—benefits that pay off through greater dependability, lower operating costs, less maintenance. Minneapolis Honeywell, Minneapolis 2, Minnesota. In Canada, Toronto 12, Ontario.



Speed is always important in a fire. And one of the important ways to combat it is with the Kidde Knockout Blow. It's a quick, effective extinguisher in a variety of designs.



HONEYWELL
AERONAUTICAL CONTROLS

**Quick
KNOCKOUT BLOW
for cabin
fires!**



Here's a Kidde-designed airplane-cabin extinguisher that weighs less than 7 pounds... holds more than a quart of antifreeze water solution. Needs no laborious pumping. Light enough for a stewardess to use easily with one hand. Good for operation down to -40°F!

A twist of the handle punctures a sealed cartridge of carbon dioxide (CO₂)... releases this powerful, non-toxic propellant to drive the water stream. Then press the release with the thumb... and a pressurizing stream quickly kills fires in seat cushions, blankets, paper, other combustible materials.

Extinguisher is easily recharged with plain water during flight. No special tools or other equipment needed... just carry a couple of small spare cartridges of CO₂. Light, compact, sure in action, here's the ideal extinguisher for airplane cabin. Light-weight brackets are available. Get the full facts today!

This use of CO₂ as the propellant for a water stream is but one of the many ways in which Kidde has harnessed the energy of gases-under-pressure to make flying safer. Kidde engineers are always ready to work with government agencies, aircraft manufacturers and transport companies in developing new applications of gases-under-pressure—or new equipment to utilize the gases more effectively.



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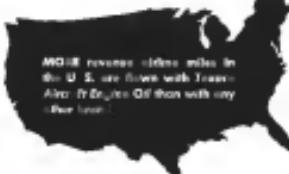
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Engineering Service so outstanding
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At aircraft maintenance men anywhere, and you'll hear high praise for the service Texaco Lubrication Engineers give. Flight schedules have been minimized and many a maintenance dollar saved... because of the willing cooperation of these experts.

If you feel that your engine overhauls are too frequent... if your endurance troubles are causing too many interruptions in service... let a Texaco Lubrication Engineer specializing in aviation, work with you. His wide practical experience is frequently helpful even beyond the field of lubrication.

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TEXACO Lubricants and Fuels
FOR THE AVIATION INDUSTRY

TIME 1011 TEXACO STAR THIRTEEN presents the TOMY MARTIN SHOW featuring Alan Young every Saturday night 10:00 minutes Per time and series

THE AVIATION WEEK

'Education' . . . But How?

Companies are not the only ones concerned with getting action on the air policy recommendations. Last week, behind closed doors in New York's Empire State Building, the Board of Managers of the National Air Council considered another means to spur action. That is a proposal for a "public education" campaign that would be a language method of stimulating consistent support of the recommendations.

The National Air Council started life with the bright promise of any aviation group.

It inherited the funds of the Air Power League, plus the active backing of groups and individuals who had been cool to the League. In addition, it was the close associates of L. Welch Pogue, former CAB chairman and then president of National Aeroactive Association. Lowell H. Swanson, former NAA executive vice president, and John E. P. Morgan, then executive director of Aircraft Industries Association.

Last week Pogue, unable to attend the NAC meeting due to illness, wired a request that NAC defer action on funds raised to finance the educational campaign. Pogue and a group of friends have retained Executive Research Inc. to draw up a plan of action for NAC. Morgan, no longer connected with AIA or NAC, will cooperate with Executive Research. Pogue asked NAC's management board to wait until ER's report is in.

Original Concept

NAC Executive Vice President John Dwight Sullivan declined to disclose what action was taken on Pogue's request. But he expects to release soon details of the educational program. That could indicate that Pogue's request was refused and that NAC will proceed as scheduled. It would not be the first time that NAC departed from its founders' ideas.

Concept of the National Air Council was a superassociation organization, differing in no other respect but drawing support from and uniting all groups. It would parallel the Automotive Safety Foundation (the Council's original name was Aviation Foundation), and collect and dispense through other organizations all funds for aviation public education, securing adequate means for concerted effort.

It was believed that this device would give aviation its most effective weapon to win at all times public backings for national air policy. Obstacles however with the original concept had that NAC's present proposal departs from that concept and is the sub of Pogue's objection.

To the layreader familiar with the growth of the foundation (or Council), the Pogue telegram looks like perhaps the final volley in a prolonged defense of the original concept.

More than a year ago, Pogue, Morgan and Swanson were key aviation figures in manufacturing, transport, government, and private aviation to the foundations (instead of the general aviation organizations) to finance the trade groups such as AIA and ATA, making the funds that is hard to support their special activities, most of which are educational in nature, the foundation would collect the funds from supporting companies.

General Approval

The foundation, administered by a board representing those companies, would examine activities of other organizations, anything where desirable. The foundation would do no public work in its own name but always act through existing groups. This concept was universal approval.

But short of that time the Air Power League found itself in a box.

It had started out promoting arbitration—a legislative proposal. Then it discovered it could not return its free status in a hobby. With its hands tied on one key activity, it began poking about for a new "cause" that could justify expenditure of more than \$100,000 in NAC funds.

APL Takes Over

APL first tried to win support for a proposal to absorb all non trade aviation organizations, beginning with the Air Force Association and Air Reserve Association.

The plan fit flat. Then Pogue approached APL for its backing on the foundation idea. APL proposed to take over the foundation. In the end, a compromise was accepted. APL changed its name and made its governing board more representative. Pogue was elected to the Board of Managers of the Council.

Pogue was named to a three man committee to appoint the new executive director. The other two members were former APL officials. Pogue's nominee for the executive directorship was voted down, D. J. Dwight Sullivan, former APL official, got the job of executive vice president.

This novel plan was for NAC to launch a national educational campaign in its own name.

This contrasts with Pogue's basic plan for having all promotion done by existing organizations with funds allotted by the Council. And this clash in concepts narrows the long-range attachment of recommendations laid down in the two polis reports.

The one thing few in aviation forget is that there have been policy reports in former years. Their long-range effect always was demonstrated by the growth of public support as measure of the report's impact.

Everyone agrees that this time there must be a public education campaign to bolster the policy reports. Who will do it, and how, is part and parcel of an policy planning.



The B-26, world's largest land-based bomber. It has a range of 10,000 miles, is powered by two motors and has bomb bay容积 equal to the volume of four freight cars.

No Problem "TOO BIG" for PACIFIC-WESTERN



The photograph shows one of the eleven Model 130000 actuators which, with variations in draw length, depending on job requirements, are incorporated on the B-26.

• ELEVEN SPECIALLY DESIGNED PACIFIC-WESTERN ACTUATORS operate the bomb bay and center doors of this giant plane. These PACIFIC-WESTERN actuators incorporate a compact, efficient, three-step gear reduction providing a total ratio of 300:1. The actuator, consisting of motor, gear reduction and cable drum, weighs only 13 pounds but delivers 3600 inch pounds output torque.

Again, PACIFIC-WESTERN is proud to have participated in helping plane designers to make aviation history. Over a half a century of gearmaking experience is available to help you solve your problems in aviation gearing.

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NEWS DIGEST

DOMESTIC

Major Gen. Ulf G. East, leader of the first AAF low level bombing mission against the Pusan-Ramseon air fields, died in Denver after a long illness. He was seriously injured in a B-25 crash three years ago.

Navy's Attobee research rocket hit 1600 mph and reached an altitude of 75 miles in its first test firing at White Sands, N. M.

President Truman requested Congress to liquidate the War Assets Administration by June 30. Remaining surplus disposal assets would be handled by the Federal Works Agency, under the President's proposal.

Consolidated Aircraft Corp. assets will be sold at public auction Mar. 17-18 at Valley Stream, Nassau County, N. Y.

FINANCIAL

Consolidated Vultee Aircraft Corp.'s annual meeting scheduled for Mar. 17 has been postponed due to auditor's inability to complete report in year end Nov. 30, 1947, on time. New date will be set later.

Bendix Aviation Corp. reports net income of \$5,246,999 on sales totaling \$141,625,520 for fiscal year ending Sept. 30, 1947. Aircraft production accounted for \$71,000,000 or about 38 percent of total sales.

Arm Supply Manufacturing Co. Inc., reports net loss of \$125,339 for the 1947 calendar year after going effect to a tax refund of \$124,016. Net sales for the period were \$1,206,372 even paid to \$386,587 for the previous year.

FOREIGN

CNRAA Air Transport, China cargo airline headed by Maj. Gen. Chien L. Chen, wartime commander of the 14th U. S. Air Force in China, has been granted a year's extension of its operating permit by the Chinese government. The cause has been changed to Civil Air Transport.

Ministry of Public Works and Communications of Ecuador has been authorized by executive decree to sign a contract with Pan American-Globe Airways, Inc. (Panair) to increase the aircraft's route for carrying passengers and to expand its services.

Irak Petrol British Antibodies have lifted travel restrictions covering the frontier to air travel from Syria, Lebanon, Transjordan and Upper Palae.

Tools for the planes of tomorrow



PYTHON & MAMBA Gas Turbine Propeller Engines

ARMSTRONG SIDDELEY MOTORS LIMITED

Parkgate, Coventry, England

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You're looking at tomorrow!

One glimpse of the great new XB-47, built by Boeing for the U.S. Air Force, will project you far into the future. For here is an airplane startlingly different in design—so revolutionary today as was the first Boeing Flying Fortress in 1935. It is the first bomber specifically designed to take full advantage of jet propellers.

How fast is it? The aerial figure must remain a military secret, but its remarkable lines and enormous power are enough to tell you it was designed for terrific speeds.

It's a big airplane—roughly the same size as the famous Boeing B-52—and can carry a ten-ton bomb load. Six

turbojet engines give it a rated thrust of 24,000 pounds, which is the equivalent of more than twice the power of the Superfortress.

But the most significant fact about the XB-47 Strategic is its radically advanced aerodynamic design.

The sleek, swept-back wing and tail surfaces, sleekly beautiful body lines, streamlined nacelle mountings and tandem landing gear look ahead to the era of supersonic speed.

Boeing leadership in research and engineering gives the nation the B-57, the B-52 and the new B-50. Now it opens new paths for America's Air Power in the realm of jet-propelled flight.



During development of the XB-47, Boeing and North American

For the Air Force, Boeing is building the B-50 bomber, XB-47 jet bomber and C-97 transport for the Army, the C-124 Globemaster and for six major airlines, the radio-deck Boeing Stratocruiser.

BOEING

AVIATION WEEK, March 25, 1948

NAL-ALPA Heading Toward Showdown

Mail pay issue and court battles loom as the next skirmishes in dispute.

By Alexander McSweeney

MIAMI—Conflict between the "unassassable object," George Thunder Baker, president of National Air Lines, and the "irremovable force," David Lewis Belverde, president of the Air Line Pilots Association (ALPA), continued last week in overshadow NAL's other and concurrent labor controversy with the International Association of Machinists.

If Baker should win out over Belverde, the result will be somewhat startling in nature: like relations between Belverde and his wife, his personal strife leaves with other members much longer than NAL. Belverde has admitted that "this is a cold, hard strike." The fact that Daniel C. Carroll, one of the last AFL attorneys, who successfully handled some of Petrillo's recent union cases, is appearing for ALPA in evidence of an "all-out" ALPA effort in the NAL case.

Baker and Belverde marshaled their legal forces for a renewal of one phase of their conflict scheduled Monday, Mar. 15, in Washington before the Civil Aviation Board, as NAL's application for increased mail pay

► Pilots, Picket-Mosiacola, of Miami but work, more than 400 striking pilots tomorrow, to begin a 24-hour picket around the front of the NAL main terminal offices and at the Miami International Airport, wearing their NAL uniforms and arming bats, with marchbands pronouncing the strike. Out at the airport after picket began by NAL as "replacements" to the strikebreakers were Flying Fortress Douglas DC-3s and Lockheed Lodestar over National routes to Washington and New York, New Orleans, Key West, Havana, and intermediate stops.

NAL reported it has hired 86 of the pilots from a large number of applicants, and that virtually all had previous civilian transport pilot experience, many with major airlines. Application forms with major airlines, Pan American, TWA, American Airlines, Pan American, Pan Am, Capital, Western, Northwest, and United, in addition to TACA, Pan American Airways and E. A. Schools, Delta Airlines.



In front of National Airline's downtown Miami ticket office at the Columbus Hotel, three National Airlines pilots, two pickets and a supervisor, are holding the picket that their month-old strike is continuing, despite the fact that NAL has resumed service with non-union pilots. Left to right: Capt. J. A. Deasey, J. K. Mathews, and W. H. Brock.



Pilot issue there other airlines grant National Airlines Pilot Check Increases, 12,000 in referee, as he picks Miami International Airport as the month-old NAL pilot strike. In the background, a picket of the International Association of Machinists, representing the striking closed unions and members of the unions, looks his sign into the picture. Left to right is foreground: House, Fred Conn, Eastern Air Lines, Paul Berg, Pan American Airways and E. A. Schools, Delta Airlines.

International Airlines, Air France, KLM, and Pan American-Gates.

A company analysis of the first 77 based reported no average age of 31-34, about two-thirds of the group are married, the have college degrees and many of them have total incomes above the \$600 mark, with one listing \$10,875 for, in closing \$600 hr in DC-4s. Average of pilot logged time amounted to 4,939 hr.

► Major Issue—A major issue of the pilots is as to whether their present pilots are being permitted to or are leaving "strike status" while still enfranchised their posts to the strikers returning after service.

ALPA executive vice-president William Kilday, and David E. Bush, chairman of the NAL, believe most of ALPA, are supporting the strike's day-to-day strategy from an office in Cold Springs. In addition to picket duty, the striking pilots keep a close record of all NAL equipment movements along the system, and make a passenger count as every plane leaving Miami. They follow the "replacement" pilots through their postflight procedures, watching for violations of regulations. They hold frequent night meetings as innumerable just across the street from NAL headquarters in the International Building in Miami.

► Other Problems—Kilday says Supreme Court rulings have established the striking pilots' property right in their jobs. He cites the case of the *Penna. v. Werren* Railroad strike which continued for three years after which the strikers were rehired, displaying "replacement" personnel, as a somewhat parallel situation. And he says:

"Why does Ted Baker come around and talk to the pilots individually and try to get them to come back if he is not of his position?"

Sequel: Striker Ted Baker talked hopefully but quietly as he voted for罢工.

► The strikers and the pilots in come back to see what would happen next Friday. When they didn't come, we advertised for other pilots. All that we are hearing are through National's regular pilot checklist course. We are spending \$7,000 a week cash outlay for training of the new pilots, in addition to overhead costs. We are not yet throwing that money away. The new men are 100 percent."

► DC-6 Checkers—National was to begin check-out of pilots on its modified Douglas DC-6 planes last weekend, with anticipation of putting some of them back in service by the end of March on the Miami-New York run.

The pilots' strike triggered a Senate economic effect of the sailing has undoubtedly taken down NAL management back at the peak of the Florida tourist season. A spot check down at Mi-

ami and Miami Beach ticket offices showed both virtually empty except for NAL employees, while adjoining Eastern Air Lines offices, which provide competing service over much of the same territory, were crowded.

At the airport we watched one NAL Lockheed, which is pastime from New Key West. The ALPA strike plan, however, does not set entirely aside with those of the airline, and there is a similar agreement over base pay rates.

National originally proposed a eight, six states of seven Douglas DC-4s carrying 45 passengers each, and 12 Lockheed 10s at 14-passenger capacity. It is purchasing its four Douglas DC-4s at 50 passenger capacity, which at approximately \$1,000,000, National's replacement pilots are operating 14 daily flights, with more expected to be added this week. The airline has said ALPA has \$5,000,000 in damages and the IAM for a similar amount in a series of press releases by ALPA and a magazine article in the *Machinist*, IAM publication, which made "misrepresented statements that the National aircraft were unsafe." Another suit for \$75,000 has been filed against IAM because the machinists walked out in alleged violation of a no-strike clause in their contract.

► Clerical Strike—National's machinists stopped working Jan. 24, after apparently failing to reach an agreement with ALPA. When the strike reached 10 days in a rank of 2,500 it caused O'Neal and ALPA statements say that there was a sudden slowdown when he was in his final approach to land, resulting in a tailwind which caused him down the runway to the 1000 ft mark. Fellow pilots say O'Neal is an excellent flyer.

President Baker stated that he has no

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pilot checklist course and he proposed

to fly the line again, but he does not want to re-employ him as a pilot because of the "judgment case." He has offered him other non-flying positions with the airline.

► Mediation Asked—ALPA called for mediation in the O'Neal case after his decision to leave the airline. A dispute over the mediation machinery led to the strike itself. It was first set for Nov. 12, 1947, but postponed for further discussions and finally called at Feb. 3. NAL insists they received two hours' notice before the 11 am strike deadline. Soon after the strike was called, Baker notified the National Mediation Board that he would accept Behrend's proposal for a one-man neutral mediator to meet with two pilots and two management experts.

A Feb. 7 Washington meeting brought announcement from Baker's attorneys that he had withdrawn his offer. ALPA says that the offer was definitely attributable to his calling the strike. If he had been invited, NAL says the same offer was made previously di-

rectly to ALPA's representative in Miami, J. C. Clancy, by telephone, without ALPA's knowledge. Clancy was quoted as saying "It is up to the mediator himself."

► Strike Pay Boost—If National gets its mail and base rate, sought from CAB in Washington, it will be a considerable financial blowfall. ALPA is opposing the increase on the ground that NAL's base rates has already affected its efficiency of management policies.

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Post Office Withdraws Backing For Domestic Air Parcel Post

Opening field to non-certified carriers seen as reason for reversal of previous stand; rates proposed.

Post Office Department withdrew its support for organization of a domestic air parcel post system last week.

The Department's reversal in policy—last year it vigorously pushed in Congress for air parcel post—followed a series of developments in the House group, headed by Rep. Edward Rees (D., Kan.), that the Department might be compelled to support a bill to expand the 100-mile air mail route system.

► Proposed Reversal—It is in the sense of Congress that the management of domestic air parcel post service is at the public's expense. Donaldson recommended to Rees that the Rate Bill proposed by the Post Office be withdrawn.

► Donaldson Statement—In his official statement to Rees, with regard to the Congressional bill to expand the domestic air parcel post, Postmaster General José Donaldson asserted: "This Department is not advocating that such routes be augmented, nor has any person or organization been made of this Department for its present post service."

At a subsequent hearing, Donaldson was confronted by Rees with official statement of the Post Office Department of a year ago vigorously urging its immediate establishment of an air parcel post.

► Chata No Information—Donaldson's statement reported that the Post Office has no information available upon which he based his statement of a year ago that would be of aid if air parcel post service were established.

In view of this startling contradiction of facts as it stands, Rees' "Domestic air parcel post" bill—high rates to airmail—should be a self-supporting service.

Rees countered that in April 1947, the Post Office employed that "responsible of the bills," pronouncing val-

ue of business, would be an important factor in determining routes from air parcel post service. At that time, the Kansas Congressman also insisted, the Department demanded for him a minimum rate of 10 cents per mile for mail transported by air.

► Proposed Rate—It is in the sense of Congress that the management of domestic air parcel post service is at the public's expense. Donaldson recommended to Rees that the Rate Bill proposed by the Post Office be withdrawn.

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PAA Hits at Tie-up Of TACA, Waterman

Strikes company accused of entering air transportation by subterfuge.

Pan American Airways and Waterman Steamship Corp. have engaged in a bitter battle over the future of TACA, SA, part of the enterprising TACA Airways System in which Waterman again triggered a substantial internal outcry last year.

TACA, SA, a Salvadoran company, has applied to CAB for renewal of its foreign air carrier permit covering routes from San Salvador, to Mexico and New Orleans. PAA asserted that since TACA, SA, is wholly controlled by TACA Airways System, which in turn is now controlled by Waterman, the case or review is appropriate to a U.S. carrier's operation to be by subterfuge or otherwise that it could not acquire by direct application.

► **Stans Challengers**-PAA declared that TACA, SA, is not a bona fide Salvadoran company and hence is not entitled to U.S. routes on the basis of international reciprocity. Pan American emphasized that Waterman's own application for Latin American routes have been turned down by CAB.

When Waterman acquired its interest in TACA in January, 1947, the carrier's financial position was precarious. TACA Airways System reportedly lost \$1,920,000 in 1946, largely as a result of severe decline in the tonnage amount of \$57,750,000 and net revenues of less than \$38,000,000. Pan American claimed that but for the entrance of Waterman on the scene at that time TACA could not have continued operations for any substantial period.

► **Profits Clash**-TACA asserted that Waterman, because of inadequate profits from its steamship operations, could afford to gamble on developing TACA as a method of earning the air transport field. It added that a "bona fide" of profits from Waterman Steamship Corp. to a foreign government would restore these profits because from Federal taxation.

While TACA, SA, the Salvadorans company, and the TACA system are separate, the need of international routes are an present plan for public offering of stock. Losses were substantially smaller in 1947 than in an 1946. Paul Richter, TACA Airways president, stated that Waterman will advance funds necessary for the continued existence of TACA.

► **Steamship Use**-TACA's use of steamship services by Waterman evoked strong criticism from Pan Ameri-

can. Since March, 1947, at least two (and possibly three) steamships chartered by Waterman to TACA Airways Agency have brought the air carrier revenues in excess of \$40,000, according to PAA.

► **Waterman Contests**-In attempting to show that TACA, SA, is not a bona fide Salvadoran company, PAA declared that over 90 percent of TACA Airways System stock is owned by U.S. citizens and the majority of TACA officials are Americans. It added that the DC-4s with which TACA, SA, operates to the U.S. are leased from Waterman Airlines, that Waterman furnishes maintenance facilities for the craft at New Orleans, that 34 of the Salvadoran company's pilots are U.S. citizens, and that Paul Richter, president of the parent firm-TACA Airways System-was hired by Waterman.

CIO Aircraft Conference Request Faces Tabled

There is little chance that President Truman will grant the request of the United Automobile, Aircraft and Agricultural Implement Workers for a joint national conference of labor, management and government to study what the CIO union describes as a "rock" condition in the overall industry. According to White House sources, Truman feels that enough working has been done by his Air Policy Commission and the Congressional Board.

The labor-management-government aircraft conference was proposed by UAW CIO President Walter P. Reuther on instructions of his executive board. Its purpose had been, would be to develop recommended skills needed to produce advanced types of aircraft and government aircraft. He had explained a long range view of the situation would provide for greater stability, security, greater economic stability and broader employment.

One Place Helicopter Crashes in Auto-Landing

Failure to fire set at the end of an automatic approach is blamed for the accident to a Pionair HRP in-place transport helicopter. The nose of the craft was badly damaged. Lieutenant "Red" Pelt, test pilot, was killed. A comprehensive investigation is now under way to determine the detailed cause of the crash.

The high rate of descent of a helicopter makes it particularly dangerous to land on a paved surface because the pilot's seat is at least behind pilot and parallel with the center of gravity. Most of the equipment shown is flight test instrumentation especially arranged for recording purposes.



HEAVYWEIGHT FIGHTER TAKES THE AIR

Fast takeoff of Convair XP-86, Air Force's newest fighter, at Marine Air Base, Calif., on a 57-min flight. Total to be end of

the largest fighter plane ever built, its empty weight is only slightly less than that of a B-17 bomber.

touching the ground to slow the landing. Although definite cause of the crash has not yet been determined, it

appears that the pilot either failed, or was prevented from, increasing the effective pitch at the proper moment.

Jet Fuel Shortage Is Big Question

New Army-Navy specifications give hope of ending scarcity, but no results promised for two years.

By STANLEY L. COLBERT

Look for the tight jet fuel situation to clear up, but not for at least two years. Broad new Army-Navy specifications for jet aircraft fuel hold a big answer to anticipated shortage under current specifications by permitting greater margin in base fuel characteristics.

But AN-F4-48 (official title of the new specification) won't be put into actual use for some time, and engine manufacturers are already chafing.

They are faced with the possibility of moving engines for wider flexibility so that aircraft can operate with fuels having differing characteristics.

Alfreds, Carter-Wright, Pratt & Whitney, General Electric and Westinghouse are conducting engine experiments with the new fuel.

How base fuel set new fuel will be determined is not disclosed. Current jet fuel base fuel is 50 percent of the base fuel plus 10 percent. Under the new specification, a "base" of grade may yield up to 55 percent.

► **Characteristics**-Fuel that meets the new specification can have qualities available because of an increase in the fluidity of characteristics which include:

- Freezing point not above -70 degrees F.
- Autoignition content not over 10 percent by volume.
- Unleaded specific gravity

► **Shift**-Changes in the distillation of jet fuel resulting when above or below its base fuel content can affect the production of engine fuels. Distilling the base balance of oil to extract extra bottom oil, for example, can cause the loss of about three barrels of winter fuel. And winter fuel's consistency is the oil manufacturer's greatest source of revenue.

While military storage in gasoline is extremely high, oil industry surveys claim that alternate jet fuel requirements will be about 100 times greater than aviation gasoline.

Biggest technical problem emerging from the new specification is finding the engine manufacturers. Their major part is necessarily utilized in the fuel system is AN-F4-48. Fuel problems are still exclusive.

► **Commercial Jets**-Projecting their research to the future, oil manufacturers feel that for commercial jet aircraft, a less volatile fuel will be found by separation because of the reduced fire hazard. They doubt that jet engines will be in civilian heavy-duty aircraft such as dash, oil and gas oil because of extremely low temperatures normally encountered, and the problem of designing a light-weight high-temperature engine to utilize such a fuel.

The aviation gasoline situation is slightly better fixed-but not by much. The large downward movement forecasted by the government in requiring refueling of aircraft beyond the usual requirements. While gasoline suppliers will not admit that an actual shortage of aviation gasoline exists, they have let it be known that there is a severe gas cut-off at the present time. But failing to find a ready military assignment takes a sudden upward swing, present customers will receive all commitments.



CONSTITUTION'S COMMODIOUS COCKPIT

Lockheed XRM-1 Constitution flight deck shows arrangement of flight engineer's station and compact cockpit of pilot and co-pilot controls and instruments. Flight engineer handles oil gauge, propeller, fuel, oil, electrical, fire extinguisher and landing gear controls. Co-pilot handles controls of responsibility of pilot. Standard features include adjustable armchairs mounted on wide extendable base; power panel; cockpit loudspeakers above pilot's seat; plane commander's seat at left behind pilot; and parallel walk of entire flight compartment. Much of the equipment shown is flight test instrumentation especially arranged for recording purposes.

ENGINEERING & PRODUCTION

Modification Business Emerges From Slump

Two prominent West Coast aircraft modification companies currently give evidence that a current slump in the modification market may be ending.

At McChord Air Force Base, Van Nuys, Calif., American Modification Co. has more than doubled its payroll since emerging from mid-warmer aircraft rig rating that had forced reduction of personnel to slightly under 200.

Similarly, Pacific Overhaul Airlines, at Ontario, Calif., reports the prospect of new modification orders as simple aircraft, and expects to begin expansion of its payroll within the next three.

AMC Optimistic—AMC prospects are brighter by the company's first annual aircraft contract, for evaluation of four-circuit aircraft of American Overseas Airlines. This is believed by AMC officials to provide an opening wedge in their campaign to sell aircraft on the basis of their value in New Zealand for possible modification. AMC also has contracts for 1945 aircraft, portion of the modification of the Allison light-weight radar. A demonstration of the need is by Air Force officers at Wright Field was planned for this week.

POA's modification business is reported to improve steadily, but at a rate contingent upon CAM action in defining more clearly the regulations of unscheduled carriers, principal buyer of converted Douglas transports.

Credit Report

What might indicate a trend toward greater financial stability in the aircraft manufacturing industry is disclosed in the National Credit Office's report on aircraft failures. Five aircraft firms suffered financial embarrassments in 1947 involving a debt of \$11,187,000 as compared to eight aircraft failures in 1946 with a debt amounting to \$11,833,000.

Total debt of the five aircraft companies averaged out to \$3,177,000 per failure. This is lower than the average for all but one of the failures listed in the Credit Office's monthly descriptive report of aircraft finance announced in 1947 involving a debt of \$11,187,000 as compared to eight aircraft failures in 1946 with a debt amounting to \$11,833,000.

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Convair-Liner Progress

While assembly work started on the 100th Convair-Liner last week, American Airlines accepted delivery of the first five of its order for 75 of the craft. They will be based at Arkansas (Okl.) Training Center for operating personnel familiarization.

The 100th craft is scheduled for Central Air Transport Corp. in July.

BRIEFING PRODUCTION NEWS

► Ryan Aerocar Co. recently signed new sales contracts totaling \$1,068,000 in a three-day period. This business for the Metal Products Division includes exhaust systems for the Fairchild C-119 Packet cargo plane, Boeing B-47 Superfortress bombers, McDonnell Banshee fighters, Douglas A-37s and the Navy Bureau of Aeronautics. In addition Ryan's contract for production of piloted aircraft or guided missiles has been increased for the third time.

► Maryland Aircraft Co., Victoria, Calif., reports a backlog of \$1,569,000 in Air Force and Navy major aircraft contracts. Under private development is a "flying gun" rotor helicopter, construction on which is nearing completion.

► Russell and Loush Optimal Co. has developed a streamlined autodrome which projects only two and one-half inches above an auxiliary mail line and can withstand a total force of three and one-half tons. The dome consists of an outer panel, which is a ground-glass polished optical lens enclosing reference marks to a maximum. The base plate is plated and contains a defrosting system. The pressure strength of the dome is not less than 100 psi for all contemplated requirements, according to Edward F. Fleet, its designer.

► Casella Aircraft Co. has received orders from Johns Manville Works for more than 12,000 hydraulic cylinders amounting to more than \$300,000, and a \$300,000 extension to its Army contract for tropical hardware.

► Textron Engineering and Manufacturing Co. will modify nine Martin 14-2 trans planes of Northwest Airlines to include large carry-on baggage compartments, larger galleys for hot full load service, larger cost room layout, increased baggage and cargo space. Engineering and fabrication of parts will be done by the Glass-L. Martin Co. with the parts shipped to YEMCO's Dallas plant for installation.

► Solar Aircraft Co. has received orders in excess of \$800,000 in a single month bringing total backlog to \$4 million. Production of jet engine parts, exhaust manifolds and gasket metal components is under way at the company's San Diego and Des Moines plants.

► Aeromarine Co., Inc., a new Cleveland firm headed by Ross Jack, W. E. Tabb and Scott Bonham, all former Jack & Heaton Co. officials, to manufacture the products of the new California aircraft research laboratory. Ross Jack, son of Bill Jack, uses the group's old equipment in aircraft hydraulic parts.

► Aero Corporation, Atlanta, Ga., and its affiliate, United Aero Service Inc., Charlotte, N. C., are converting three Douglas C-47 and a Convair YF-54 to export to South American countries. Additional equipment has been installed recently to handle the increased export sales of the two companies.

► Northrop Aircraft, Inc., has received a certificate from the American Legion in recognition of its employment of physically-handicapped veterans. The only certificate so awarded in the U. S. Northrop has been conducting extensive war credit research on artificial arms and other prosthetic devices for more than two years.

► Surface Combustion Corp., Toledo, Ohio, has received a contract for installation of jetisonable arrestor beams for the entire fleet of 26 transports operated by Delta Airlines. Seven Delta DC-4s are already equipped with enclosed-frame combination landing and arresting DC-3s are being modified. In addition to cabin arresting, the system also includes ducts to the windshield to provide antiicing protection.

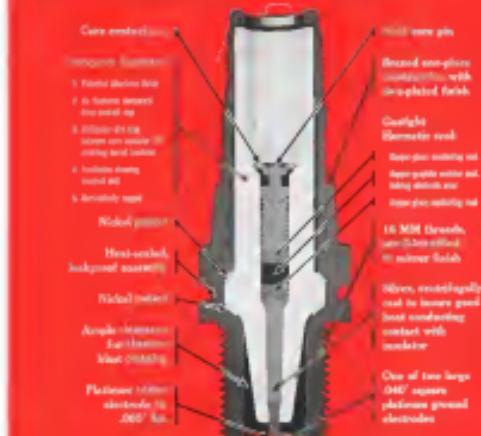
Pan American and Western Air Lines will receive their first models in approximately three weeks, according to company spokesman.

Republic Appoints Scanlon

Republic Aviation Corp. has appointed Martin E. Scanlon, former Air Force colonel, as director of exports with headquarters in Washington. He succeeds the late H. W. Flickinger.

Scanlon will represent the company's role in connection with supplying air forces of Latin American countries with P-47s under the American Republics Program.

SETS NEW PERFORMANCE CEILINGS



AC's great new Type 181 Aviation Spark Plug is currently approved by Pratt and Whitney and C. A. A. for the Herkut E-3 (R-1470), Twin Wasp C (R-1830), Twin Wasp D (R-2800), Double Wasp (R-2800), and Wasp Major (R-4360).



AC's new Aviation Spark Plug for commercial plane engines incorporates a combination of engineering features not to be found in any other plug . . . features which set new ceilings in performance, length of life, durability, and ease of servicing. Heading the list of these features in AC's patented new plug is plain-wire electrode insulation. Look at the cutaway view and you'll see the others.

In all respects, the AC-181 is an plug with the latest needs in engine design . . . and fully meets their needs.





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Now—A New Blade Construction Principle Opens New Horizons for the Aerospace

With the successful development of the tubular blade principle, Aeroproducts announces another great stride forward—AeroProp with tubular blades engineered for engines up to 30,000 horsepower.

These are two salient advantages offered by the *Acquisition* with respect to the *Acquisition* of the *Acquisition*.

Technique: Bladder Graze Endostyle (BD) Main structure of anterior rectal mucosal layer (the rectal mucosal layer and lamina propria, BD) can be visualized by endostyle endoscopy. Endostyle endoscopy is performed by using endostyle endoscopy technique. BD is a mucosal layer without epithelial layer without muscle layer. BD is a mucosal layer without epithelial layer without muscle layer.

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duced with selected features—reverse pitch, instant feathering, de-icing, etc. Models with application up to 10,000 horsepower are in production or design.

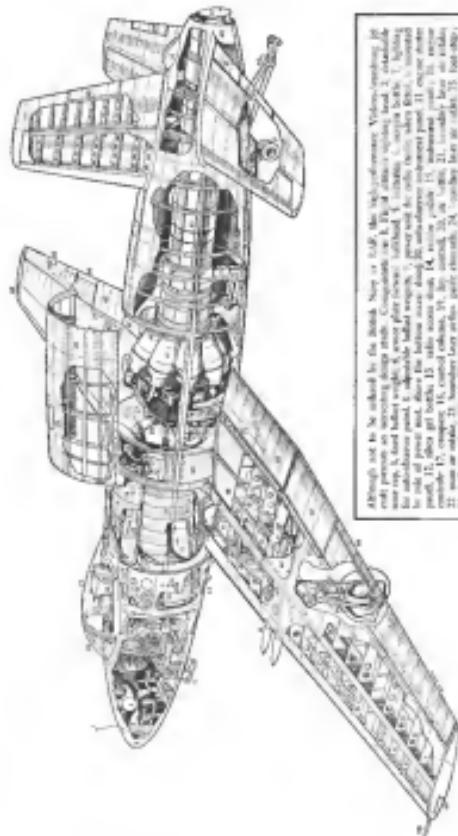
Like all Aeroprope than propellers demonstrate again that Aeroproducts—backed by the research facilities of General Motors—can help today with your planning for tomorrow.

A black and white photograph showing the front view of a propeller-driven aircraft. The aircraft has a single propeller at the front and a single-seat cockpit. The body is a simple, light-colored monoplane design.



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ALBUM OF DESIGN DETAIL



SEA ATTACKER

"Droop Snoot" Configuration Aids Jet Fighter Landings

Leading edge flaps improve lift characteristics of high speed wings for slow approach. Piloting technique is greatly simplified.

By ROBERT McLAURIN

In high speed aircraft, the low drag characteristics of the wings are of considerable nose importance than the lift, resulting in a progressive decrease in lift coefficient for high speed sections in normal flight.

This deficiency has been compensated by the vastly increased speeds of military aircraft, since the lift of a wing varies in the square of the speed. The low value of the lift coefficient is of only minor consequence within the cruising and high speed range of modern aircraft.

The price that must be paid for such low drag sections is a unusually high lift-off and landing speeds, unless a great deal of attention is paid in the development of high lift devices such as slots and flaps. Unfortunately, above a given value of flap chord and deflection angle, a region of diminishing returns, in that improvements in lift coefficient through flap development does not offer any substantial gain in the future.

► **Nose Flaps Studied**—A promising solution to this aerodynamic impasse was investigated by the Germans during the war, and W. Krueger carried out wind tunnel tests at Gottingen during 1943-44 on "Nose Flaps," a name given to the wing leading edge which rotated forward of the nose at 90 degrees in the chord.

This device performs the same major function of the leading edge flap, but increases the wing camber and thereby provides a useful increment in the lift coefficient. Further work on "Nasenklappe" design was carried out by H. Kuster of Adelholz and the results of this research became available in the country after V-E Day.

In order to check the German results and, further, to examine the application of a nose flap in a modern high speed aircraft, such as is used as jet fighter craft, the National Advisory Committee for Aeronautics conducted two nose flap tests in an NACA 64-015 research tunnel at the two-dimensional low turbulence pressure tunnel at the Langley Memorial Aerodynamic Laboratory during the fall of 1946.

These results have been published in TN 1277 and indicate that the lift coefficient of a fore-and-aft section can be increased as much as 30 percent by

the use of a leading edge flap, and as much as 17 percent with the nose leading edge flap used in conjunction with a trailing edge flap. This would mean, in a typical example, a 20 percent increase in landing speed, or a reduction from 180 to 90 mph in the landing speed of a jet fighter, more than half of which is directly attributable to the nose flap. ► **Increased Stall Margin**—A second effect of the leading edge flap is an increase in the angle of attack at which the aircraft 144 degrees of apparent deflection, an increased stall margin. Both of these increases in lift coefficient and stalling angle of attack obviously result from the action of the nose flap in reducing the magnitude of the pressure peaks and the adverse pressure gradient characteristic of conventional aircraft over nose section lift. That is because the nose flap is aligned with the airflow approaching the wing leading edge, resulting in the flap carrying a substantial amount of the lift without the presence of excessive pressure peaks.

The term indicates, however, that position of the flap less than 90 degrees from the chord, causes a breakdown of the airflow over the air portion of the wing section, resulting in a loss of lift. This is true for the flap to restraints, substantially, to the lift. Similarly, extremely great nose flap deflections create large pressure peaks on the leading edge of the flap at low angles of attack. For these reasons, leading edge flap mechanisms must act quickly, and preferably be of the two-position type ("up" and "down"), to prevent the selection of intermediate positions through error.

► **Pitching Moment Effect**—A criticism of high lift devices is their effect on the pitching moment characteristics of the aircraft. The major stability problem created by trailing edge flaps is their creation of a comparatively large negative static force, producing moment requiring lift trim change by pilot.

This indicates, however, that the effect of nose flap extension is relatively small in comparison with trailing edge types. With nose flaps extended at low lift coefficients, they create negative pitching moments but as the lift coefficient is increased, the nose flap creates positive pitching moments com-

mensating in a forward movement of the aerodynamic center. This latter follows from the fact that area has been added ahead of normal leading edge.

This behavior indicates that nose flaps should not be extended by pilot until the approach has slowed to a speed producing the high lift coefficient required for flap extension. Proper coordination of leading and trailing edge flap extension will minimize the adverse pitching moment of the latter and alleviate the trim changes required in conventional aircraft.

One production benefit to feature leading edge flaps is the use of conventional V-tail. For example, in jet fighters, it features a highly developed nose flap configuration in which the entire wing leading edge is hinged downward for landing and flapwise control to the pilot's panel suggested heretofore.

The German configuration provides higher efficiency than those in which test results have been reported and piloting technique is greatly simplified. This "droop snoot" is a major factor in the fast fighter's ability to get off a carrier deck quickly and to land should slowly under perfect control.

Added Weight Eliminates Relay-Contact Rebound

Successful elimination of contact rebound on electromechanically damped relays has now been accomplished.

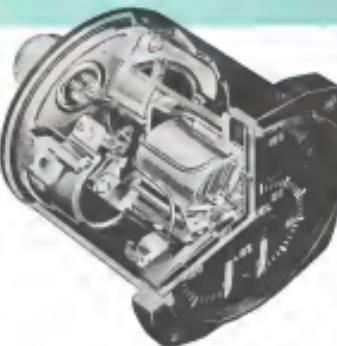
Rebound freezing of contacts due to aging has long been a major source of failure of these units. According to B. O. Aarne, Westinghouse Electric Corp.'s service manager at Lorain, Ohio, addition of an inertia member to the moving contact bar provided necessary mass to the spring pressure at the instant the moving contact bar made to rebound.

A typical application of an inertia member can be seen in the autopilot wing position. Here, the inertia member takes the form of a circular weight, sprung mounted on the contact bar.

This principle has been applied to a number of aviation contacts, resulting in the elimination of contact freezing from rebounding.



The EDISON Engine Gage Unit gives you these facts at a glance



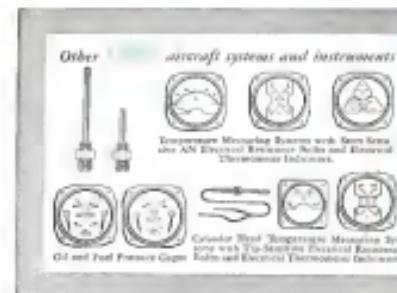
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Unit is accurate, rugged, and self contained. Any one of the three independent movements may be removed without affecting the calibration of the other two. Standard ranges and dial treatments are available.



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AVIATION WEEK, March 15, 1948



Simplified system of rotor blade alignment developed by Bell Aircraft Corp. and used by New England Helicopter Service. Use of two equal and strong linkages insures accuracy of replacing center plate, did indicators, level, and pointers. Alignment is attained by holding the string at the center of gravity position on each blade so that if given over the previously setted point on rotor hub.

'Copters Checked In Service Role

Commercial "case-history" discloses needed refinements.

Engineer-operator team vital for design improvement.

Through great strides have already been made in stretching helicopter's overall period, many small-but-critical design problems must be solved before commercial use can reasonably appear as a wide commercial role.

There's a success reason. These craft have the vital factor in common with other types of aircraft—total experience and a continuing operation to learn how they can be improved and to iron out the "bumps" that inevitably appear. This has been true of every aircraft ever designed.

The real concern are the operators who learn the design, the load, the use. And by way of the author's interview with Jameson and others with New England Helicopter Service, of Hillsboro, R.I., we contributed a big share of the helicopter know-how that exists today.

NHHS completed a year of operations in January. So far there has been more red ink than black on the company ledger, but those are looking up. President Louis W. Plympton, Jr., seeing good profits just ahead, claims little credit for picking the big problems of the first year. Key man behind the scenes is his chief mechanic, Leland Cossley.

► **Maintenance Considerations**—Cossley reports big advances in the past 12 months. Most of the credit for this he gives willingly to service engineers of the Bell

Aircraft Corp., who from the beginning have taken a close, sympathetic interest and have always tried to improve their commercial helicopter.

Morehouse costs, still high, are far lower than they were a year ago when NHHS went into business with one of the first Bell canopies sold to a private operator.

Crossley points first to the improvement in teardown procedures. In the beginning there was a complete tear down of the main rotor components every 50 hr—presumably that was due to the fact that even Bell's experts were not sure how long main parts would stand up under the stress of commercial usage.

Today, a major overhaul is necessary only after 100 hr of operation, with minor overhauls at 500-hr intervals. Thus, in Crossley's, is the major advance of the past year. He looks forward confidently to the time when major overhauls will be necessary only every 600 hr—with servicing taken in for parts and blades.

Many jobs, aside from teardown and reasonably life ratings in progress of having lay parts Marquette or Bell-gloved to detect strain and evidence of possible future failures.

The 100-hr major overhauls extend almost as long as inspection and are held ready to pack grease at points of wear. And even this is as the way out

Bell has developed a kit which will make it possible to replace the machine without a teardown. These fittings may be added to your assembly in the more rotor gear, which has cost, total, major material, part, and costal drags.

On the main rotor hub close this season's revision of the teardown time to several hundred hours.

► **Design Improvements**—Further improvements lie ahead as Bell perfects gear fittings for the overdrive control (synchro plate) and heli rotor system. Approval of the Civil Aeronautics Administration is needed for these changes before they can be adopted. When complete, the gear ratio will not involve only 12 fittings 6 to the rotor head, 4 in the mainplate, and 2 in the tail rotor—a short notice for a machine.

Crossley also reports that Bell engineers are working hard to improve the overall (gearbox) rig of the main rotor. A new design is expected to eliminate shuddering problems now found in center of the hub. This would cut a slow and tedious job faced by helicopter manufacturers.

And also on the way are improved bearings which would have infinite life if points of heavy wear are the transmission and at thrust points for the main rotor.

Bagging of the main rotor has been



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- ✓ Obstruction in path of blade will not stall it.
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- ✓ Blades are packed and locked when wiper is not in use.
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- ✓ Stroke on each window can be varied.
- ✓ Hydraulic tubing eliminates linkage control and provides additional space for mounting other instruments.
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- ✓ Uniform stroke at all speeds.
- ✓ Simplification of design, resulting in lower first cost and reduced maintenance expense.

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HYDRAULIC DEVELOPMENTS

Atomic Hydrogen Welding

The search for more spherical hydraulic pressure accumulators have been made by joining two hemispheres with a ring of series bolts at their equator. This method of fabrication, however, tended to increase the bending stresses in the shell and added to the danger of fragmentation under gunfire. In the design of pressure vessels for military am-

munition, these factors are of primary importance.

In an effort to develop an accumulator shell which would be more satisfactory from standpoint of both stress and fragmentation, the Pacific Division of Bendix Aviation Corporation eliminated the ring at the equator through pre-tensioning, joining the two hemispheres by means of Atomic Hydrogen Welding, which also, incidentally, has the effect of greatly reducing the weight of the accumulator.

The principles of this method of welding are as follows: An arc is struck between two tungsten electrodes which are held close to the work. Gaseous hydrogen flows through the path of the arc from openings in the electrodes. The temperature of the arc breaks molecular hydrogen down into atomic form, and atomic hydrogen, escaping the arc and approaching the relatively cool metal of the shell, recombines and releases the heat absorbed in the arc accomplishing the weld. The temperature gradient across the weld zone is less severe than with other methods, and the hydrogen acts as a powerful cooling agent which, by excluding oxygen, helps to preserve the original properties of the metal.



One Piece Molded Accumulator. It has a built-in self-sealing valve which permits the use of a single piece of sheet metal with no flanges.



Easy To Use — To assemble it is only necessary to tighten the nuts on the bladders. It can be repaired or re-used.



Most Shatter Resistant — Bendix has developed a new type of shatter-resistant construction for its accumulators. It is made of a single piece of sheet metal.

The outstanding advantages of all Bendix-Pacific Accumulators — for both 1000 and 2000 PSI systems — have been listed on nearly 100,000 military and commercial aircraft under very favorable operating conditions. Let us send you the complete story on these and other Bendix-Pacific hydraulic products.



10,000 PSI Barrel Strength — In the 2000 PSI accumulator the 1000 PSI shell is joined to the 1000 PSI end cap. The 1000 PSI end cap is joined to the 1000 PSI barrel. The 1000 PSI barrel is joined to the 1000 PSI end cap.



Barrel Performance — Each barrel is made of a single piece of sheet metal. It is available in 1000 PSI and 2000 PSI systems.



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Thousands
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production



E.-M. Bertheau, *High intensity approach and runway lighting system have been tested and proved in actual operation, but more than ten years. A high degree of synchronization and atmosphere has been granted by various pilots, airport operators, the armed forces, and air traffic controllers.*

During the war thousands of these lights were installed, largely along the Alaska and the Aleutians—and in the far-flung islands of the Pacific. Many of these lights—plus new ones—are now in regular use. And today, thousands of the now E-M-Bethlehem

postwar years are established, or are ordered and waiting till the airport is ready for them. These new units have up to 380,000 passengers—in less than four times the output of the L-12 Arctic units used so profusely during the war.

Get the details on these glass-fiber lights that do so much to improve safety and put our transportation on regular schedules. For information on this and other L-31 electrical equipment for large industrial exports write Linn Material Company, Airport Lighting Division, East Stroudsburg, Pennsylvania.



Pilot in a fog?

bring him in ... on "contact" ...
with fully controllable beam

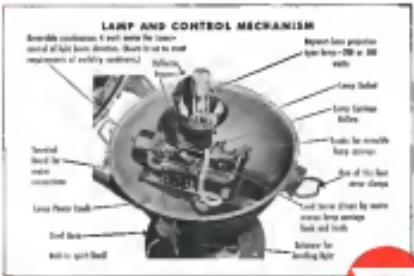
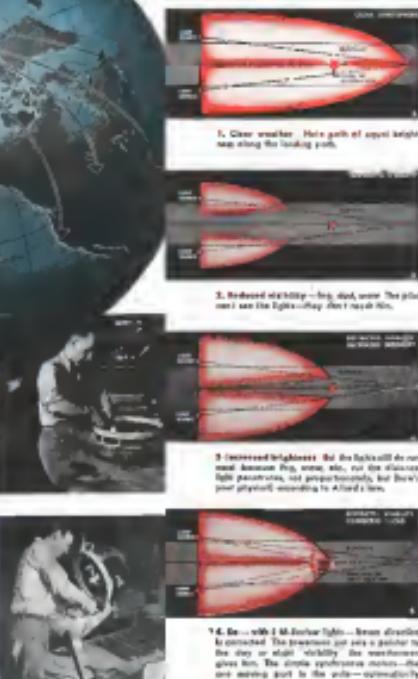
L-M-Bartow high intensity approach and runway lighting system



Any high intensity lights are better than the old type—but you can eliminate glare, and get much greater effect and penetration when you control both.

L-M-Statos lights do just that—with their 180,000-rp fully controlled, glass-free beam. The diagrams at the left give an idea of why and how it is done.

It takes experience to know these things, and a knowledge of what the child needs now when he runs off makes



LINE MATERIAL Airport Lighting



LINE MATERIAL Airport Lighting



Overgrown Aircraft Industry Pining for Procurement Boost

Backlog concentration and too much space underline need for "insurance premium" noted in Air Policy Board report from Capitol Hill.

One inescapable conclusion from the report of the Congressional Aviation Policy Board (Aviation Week, March 3) is that only a substantial increase in aircraft procurement will ease some of the industry's ills.

The industry, in a whole, is housed under too large a roof to sustain operations profitably at current levels of production and research. Maintenance operations are under a heavy drain on working cash resources of a company whose physical facilities remain idle.

While the current aggregate backlog of the industry is estimated at approximately \$3.9 billion, there is an uneven distribution of these orders among contractors.

► **Backlog Concentrated.**—The concentrated nature of aircraft backlog is manifested by the distribution of past orders. In 1958, the industry was dominated by four companies which accounted for 83.2 percent of the total sales. They were Curtis-Wright, United Aircraft, Douglas and Martin. In 1947, the distribution, while more widely diffused, was still relatively concentrated with the four largest units accounting for 65.4 percent of the industry's total sales. The new lineups are even, though slightly, with Lockheed remaining Number One, the four firms

named as recently reported backlogs, it is probable. But further changes in the listing of the first four units in the industry will take place in 1948.

Even with the implementation of Plan "A," cited by the Policy Board, total aircraft procurement requirements should be equivalent to about 111 aircraft annually, well within the confines of the physical capacities of the industry.

► **Facilities Misused.**—The present physical plant facilities of the industry can be regarded. At peak levels during the war, "run rate" aircraft production was at the rate of 9,000 per yr. It peaked in a number of public mind at the present rate of 5,000 per yr. The same aircraft facilities are turning out military aircraft at the rate of 41,000,000 sq ft. At 2.0 per sq ft per year, that area should

be capable of supporting a peak output of 165,000,000 aircraft. In 10 years, under full wartime conditions.

Firms now held in reserve have a total area of 21,200,000 sq ft. Applying the same measure, they should support an additional 181,000,000 aircraft per year at peak utilization. Accordingly, it appears that the potential industry production volume exceeds its actual capacity basis, such as obtained in 1944 and without allowance for the contribution of the personal plane that approaches 560,000,000 sq ft of usable space.

Anticipative sources indicate that plants now producing planes can be converted readily to production of guided missiles.

► **No Plans.**—The board made no plans for marginal aircraft production to aid the President's Air Policy Committee. Among other things, the Board noted: "Obviously companies will go through lean periods. Occasionally some may flounder out of business. These consider as an inescapable result of competition. The losses they entail are gauged by overall benefits of the system."

In an effort to relieve excess plant facilities and maintain production per worker, a number of aircraft companies attempted ventures into non-airplane fields. Almost without exception, this diversification has been a most expensive exercise entailing substantial losses. For the most part such diversions were brought to a standstill by credits.

► **Interest Factor.**—Aircraft builders are in an enviable position to compete with established companies in the consumer field, particularly those with an established market. It is far to note that, if successful, these non-airplane ventures could have limited the dependence and hence the burden on aircraft procurement.

Discussion in a series of conferences organized in a manner of coordinating the industry's approach to the industry's future, the same aircraft builders are turning to military aircraft at the rate of 41,000,000 sq ft. At 2.0 per sq ft per year, that area should

desirous stage only to be overtaken by a ruling by the Justice Department. It is not generally realized, but under the law, where a coalition of such two companies would have such a concentrated position in the industry, the Attorney General had no alternative but to rule against this proposal.

With certain margins permitted, however, fewer but stronger aircraft companies would suffice. The cost of the ultimate continuation of the industry, measurable from the economic standpoint of both member and non-membership, is extremely difficult to ascertain. Anticipative strengths would be increased at all times, of course, to assure the military services of at least two competitive sources of supply for the war plane.

This process would be nothing more than the evolution of a lessened, yet more competitive aircraft industry capable of living as a result of its own efforts. This is a course that would follow in the judgmental processes of a sound manufacturing industry which had been separated.

► **The Industry's Place.**—The aircraft industry, however, occupies a very special place in the American economy today. In a broad measure, the industry may be considered part of the military establishment of the United States. Of equal importance, the aircraft industry constitutes an "aerial" production complex comparable with those preceding for most standard enterprises.

While it is true that there are many intermediate factors surrounding the aircraft industry today, rating of these may be considered a form of "insurance" in a period of uncertain world conditions. The present apparent near capacity of the aircraft industry could be used as part of the broad platform for rapid expansion in time of emergency. Messianic predictions during the last war were not attained until 1945, and after the program was started. In event of emergency, all available production facilities again will be applied. This would again prompt utilization of more marginal producers who would be unable to survive in the normal competitive atmosphere.

The cost of maintaining the aircraft industry in its present size beyond economic boundaries may be considered as an "insurance premium" to obtain substantial capital inflows in time of emergency.

The board evidently sought to meet this problem by recommending that the armed services contract for the manufacture of standard facilities privately owned by the aircraft industry. The greater payments by procurement agencies would encourage aircraft contractors to keep excess facilities ready.

—Selig Altschul

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AVIATION WEEK, March 15, 1948

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AVIATION WEEK, March 15, 1948

SALES & SERVICE

Fixed Base Operators Dispute Training Claims of Budget Bureau

Balfour of Spartan cites job opportunities for pilots;
Congressional sentiment growing to retain Veterans
Administration flight training.

Aeronautics groups are beginning to
make their weight felt in Congressional
battles on the continuation of flight
training.

They have put forth a barrage of facts
and figures aimed at refuting the Veter-
ans Administration's claim that the
bulk of flight training saves no useful
purpose. As a result, some members of
Congress are favoring a continuation of
Veterans flight training on pretty much
its present basis.

Others seek to limit it to purely voca-
tional flight training. However, as

proper definition of purely vocational
training has been offered.

► **Groups Divide.**—Aeronautics groups ap-
pear divided on whether CAA should
take over GI training, or whether it
should continue under VA supervision
but be issued to a short-term group of
aviation's special problems. National
Aviation Trade Association has advo-
cated turning the training function over
to CAA. U.S. Chamber of Commerce
and Americans call for its complete removal.

It claims it would substantially increase
cost of these centers to the government
and that a pilot with extensive
training has little use.

by requiring additional CAA personnel.

Rep. Joe L. Egan (D-Tenn.) has
announced that he is preparing to
offer a joint resolution stating that
flight training is another useful job
activity. This would continue the Veter-
ans Administration's stand.

► **Teleflex Cited.**—Two points made
in testimony and briefs presented to
the house subcommittee on veterans'
affairs by Teleflex Corp. and Rehabilitation
and Service, the strongest rehabilitation
fund yet to figure tested by the Bu-
reau of the Budget. [Aviation Week, Mar. 11.]

The Bureau's exhibit noted enrollment
in 515,308 flight courses to Nov.
1, 1947. No indication was given that
a single veteran who gets an airtac
pilot's rating has taken four courses, a
course with an instructor's rating has
taken three, a commercial pilot has
taken two, and that a pilot with extensive
training has taken two.

Elimination of deployment in an
effort to cut costs is held by the Budget Bureau's estimate of total veterans' costs
in flight training.

Information comes from the Bureau's
report that the 84,968 veterans who
completed private pilot courses in



DESIGNATED AND PROPOSED SKYWAYS

Aerial highways of the air for private fliers, planned by CAA, states and municipalities, are expected to link the airports of U. S. and Canada to make possible greater use of the airways. Major cities of the midwest, Skycity, No. 1, will be direct and the north-south Skycity, No. 3, others described. Indicated are a network of other proposed Skycities, which will provide 40 miles-wide or routes for the lightplane flyers, to other principal communities. Other proposed routes indicated include three other transcon-
tinental Skyways, and four westbound Skyways, in addition to many other shorter interconnecting routes. Map is first complete depiction of the entire network of designated and proposed skyways.

getting on to advanced courses wanted that time. It is pointed out, however, that the veterans can use his plane in business travel or for many other useful purposes. A private flying course is all he needs under the law if flying his aircraft for hire.

Parties are drawn between the private pilot's license and the commercial driver's license which is all most businesses need to operate their automobile in their business and between the commercial pilot's license and the commercial charter's license required of the drivers, bus drivers, etc.

•**Bureau's Speech—Capt. Max Ballou, head of Sparrow School of Aviation, Tulsa, and president of Aeromarine Training Society, cited in the comment on his school's records of flight course graduates. His records dispute Budget Bureau's claim that there is no aviation employment opportunity for more than 90% of veterans graduates from advanced flight courses.**

Ballou reported that at the time he was speaking there were eight (as far as he could determine) 100 or more flight schools with high status. For most graduates of his school "there is no employment problem," he said.

Movement to establish a national federation of associations representing private schools, and including military schools along with other established

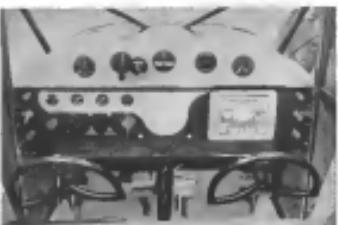
technical, business and vocational schools, is expected to bring about a more representative of the private schools before the Veterans Administration.

•**Private School Group—Preliminary meeting of representatives of nearly 200 private schools and flight schools will be held in Washington. It is estimated that more than 10 percent of the total school enrollment in the U. S. is in these schools.**

Recent hearings have disclosed that the Veterans Administration's special advisory committee on vocational rehabilitation and training has no representation from the private schools, but is made up of representatives of public educational institutions, and VA staff representatives.

The private school operators point out that their failure to be represented in that advisory group may be one reason for the VA's critics' attitude toward training in virtually all private business and vocational and aviation schools.

Aeromarine Training Society, representing most of the large aviation schools in the nation, and National Aviation Trainer Association, representing a wide range of fixed-base operators, some of them with flight schools, were among other groups participating in the preliminary meeting in Washington.



Cessna Aircraft Co. of Coffeyville, Kan., has a new 170 model which will sell at \$3495. Ground photo shows the new streamlined wing and general features of the zinc tube and fabric construction. Instrument panel has been redesigned for simplicity.

Cessna Aircraft Co. of Coffeyville, Kan., has a new 170 model which will sell at \$3495. Ground photo shows the new streamlined

New Cessna Customaire Will Sell for \$3495

Cessna Aircraft Co., of Coffeyville, Kan., will offer a new 170 two-place model called the Customaire at a price of \$3495 factory factory.

The Customaire follows previous Cessna construction pattern of high-wing monoplane with steel tubing and fabric covering and fabric-covered wings.

Principal changes are in the cabin where the front seats have been lowered to provide more leg room. Instrument panel has been redesigned to allow cancellation of additional flight instruments. Cabin is sound-proofed.

Cessnaire Specifications	
Span	35' 6 in.
Length	25' 6 in.
Height	6' 10 1/2 in.
Cargo weight	110 lb.
Empty weight	3860 lb.
Wing loading	5 lb./sq. ft.
Fuel capacity	20 gal.
Cruise speed (75% I. L.)	105 mph.
Top speed (I. L.)	115 mph.
Level land	450 ft.
Stalling speed	37 mph.
Range fully loaded	310 mi. with 5 hr. fuel reserve.
Service ceiling	15,000 ft.
Rate of climb	500 fpm.



AVIATION WEEK, March 15, 1948

Cessna Certificated

The new Cessna 170 will be certified by CAA last week, with delivery to dealers scheduled to begin before the end of March. Price will be \$3495 factory factory with a production quota of 350 scheduled by July 1.

Powered by a flat six 145 hp Continental engine, the latest Cessna four-place is expected to be a steady competitor in the stiff competition among the staff planes after competition subsides for "buddy" planes.

Skymotive Gets Lease On Milwaukee Airstrip

The Milwaukee Corporate Council has approved a 10 year lease on Matlack strip to Skymotive Aviation Management Corp., of Chicago, which will pay the city five percent of its gross receipts and a new, land surface survey to be completed. After that the corporation will continue to pay the percentage, or \$3,000 annual rent, "whatever is greater." The city also will get two extra gallons on all gas, and five cents a gallon on all oil sold at the field.

Soaring Contest at Elmira

The 15th National Soaring Contest, first since the end of the war, will take place July 20-21 at Elmira, N. Y.

Paul Schreiner, vice president and general manager of Schweizer Aircraft Co., has been appointed contest director, and Bob Taylor, former head of the Army's glider pilot school, manager of operations.

Schreiner said that inquiries should be directed to Captain Baudouine, 15th National Soaring Center, Federation Building, Elmira, N. Y.

Minnesota Conference

A statewide aviation and airport management conference will be held at the University of Minnesota, Minneapolis, and the State Department of Aviation, is scheduled April 20-21 in Minneapolis.

Chairman of the third annual conference is Walter Wiedorn, head of the Bemidji-Cross Wing County Airport Commission.

NFS Student Rally

National Flight Service plans a mass flight of its students to a centrally located vacation spot over the week-end of July 4, according to NFS President Dick Powell. He estimates 3500 light-planes will participate in the rally. Location of the rally point has not yet been determined.

BRIEFING FOR DEALERS & DISTRIBUTORS

NASTY OLD FLORIDA WEATHER—Even on sunny Florida the field house operators have their weather troubles. A personal visit around to three of the principal private flying bases in the Miami area last week found only hangar flying on the day of our visit. It was all because of a hurricane which had reached a velocity of 45 mph, the day before, and was still whipping across the fields in a way which dislodged anything less than professional pilots or twin-engine aircraft from taking the air.

ILL WIND—However, the wind made it possible to do some flying to the operators, which probably would not have fitted into a busy day schedule. Dick Flynn provided a \$2 tour of the Miami Aviation Center and then invited us to go in a look at the big Opa Locka Airport recently taken over by the city of Miami from the Navy, and the many reefs nearby.

TRANSIENTS VS. EGRET-TOWNERS—Transient aircraft business is fine during the big winter season, Flynn reports, with about 25 to 30 steady customers who come south on the planes and stay there at the Miami Aviation Center. He is getting disengaged about selling these airplanes. He builds them up as the best business in the country, but the transient business is the best business, they consider the airport operators keep busy and depend on him to bring in the birds. Flynn recently made a tally of flying airplanes by calling the other airports and discovered that there are 20 Egretters, far more than any other two-place make of plane, and in Biscayne, more than any other four-place. Since the Miami Aviation Center was until recently Egrette distributor and is still an Egrette distributor and since it is the Biscayne distributor, these figures make that airport look pretty good from a sales standpoint comparatively speaking.

CUSTOMER SERVICE—A registration form for transient aircraft used at Miami Aviation Center consists of an envelope about 5 by 8 in. which contains a carbon and a card. On one side of the envelope and on one side of the card is a form for registration data on plane and owner, including plane type and number, owner's permanent and Miami address, aircraft model and special markings. On the other side is a form for billing for the services. The attendant fills out the registration side, pushes inside the envelope, turns the carbon and the card over, and is ready to do the billing. When the bill is completed, the customer gets the card and the attendant keeps the envelope in the customer file. A yellow "Follow-up" slip which meets newspaper planes on arrival, clear instructions, a business restaurant and tourist cabin on the airport are other services available to the transient.

RESIDENCE HANGAR—On the airport site is the first of what is hoped will be a series of residence with individual hangar built on them. One circuit of the house forms a parlor for the house and the other comes from a sitting room. The house itself is stuccoed with aluminum and windows are arranged so that virtually the whole side of the house can be opened to breezes from Biscayne Bay.

OPA LOCKA FIELD—It is generally impossible to get out of survey as Opa Locka, the big double field now principally owned by Embry-Riddle has moved its school operation there from Chapman Field, which city officials turned out of, reluctantly, possibly to encourage the move to Opa Locka. If Embry-Riddle isn't paying too much for the land, it looks like a good switch. The flight school did 2000 hr. of flying in February, which is quite a lot of school flying. The hangar also includes a big barn-type building which provides heating for the students.

SWIVEL-GEAR CESSNA—Jack Case, Cessna dealer who operates at Opa Locka, told us he was planning to order the new Goodyear air-assisted landing gear wheels for his four-place Cessna 170. Questioned further, he added that he didn't have the model 170 yet, but that he was due to get his first distributor on April 1. "I think maybe the swiveling wheels will work on any aircraft," he added. "I don't know where to get them, but I think they will be available in the fall." So he and Flynn began to discuss a distributorship which might be arranged out at the Miami Aviation Center. Cessna wheels wouldn't be needed at Opa Locka but there are conditions which would be an advantage at the Miami Aviation Center.

—ALEXANDER MCGURELY



CROSSROADS OF THE NORTH ATLANTIC

Exhibits of half a dozen trans-Atlantic airlines adorn the front of the traffic counter in the passenger lounge at Keflavik airport, Iceland. The field was opened by 828 aircraft flights during the last six months of 1947 after the Americans handed it over to civilian operation. Visible are the colors of American Overseas Airlines, Air France, BOAC, KLM Royal Dutch Airlines, Scandinavian Airlines System (SAS), and Trans-Canada Air Lines. The room, recently built on the front of the old terminal, also houses customs and immigration facilities. The service is temporary. A new permanent terminal and hotel are to be ready sometime in July.

Shifts Due in French Air Policy

Chabrolan report hints at shake-up; commission set up to study.

PARIS—French aviation is headed shortly for the biggest shake-up since the government took control of the major plants in 1946, if the conservative newspaper which now dominates the government have their way.

Key to likely changes is in the so-called Chabrolan report, which raises one of poster child socialist workers and the Communist press. The French cabinet set up a commission to check over all findings and initial recommendations.

Athas M. Alias Chabrolan, one of the bright young administrative hopefuls in government and former Minister of Negroes, The full 70-page report has not been made public, but M. Chabrolan gave Aviation Week a summary as follows:

Boil for Air Forces—The great bulk of these will be for the air force, as follows:

	Smallest	Intermediate
RD-8100	Two-plane	Three-plane
RD-8101	Three-plane	Four-plane
RD-8111	Four-plane	Five-plane
RD-8121	Large	Intermediate
RD-8131	Intermediate	Large
RD-8141 or RD-8142	Medium	Large
RD-8151	Medium	Large
RD-8161 or RD-8171	Large	Large
RD-8181	Medium	Large
RD-8191	Large	Large
RD-8201	Large	Large
RD-8211	Large	Large
RD-8221	Large	Large
RD-8231	Large	Large
RD-8241	Large	Large
RD-8251	Large	Large
RD-8261	Large	Large
RD-8271	Large	Large
RD-8281	Large	Large
RD-8291	Large	Large
RD-8301	Large	Large
RD-8311	Large	Large
RD-8321	Large	Large
RD-8331	Large	Large
RD-8341	Large	Large
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RD-8381	Large	Large
RD-8391	Large	Large
RD-8401	Large	Large
RD-8411	Large	Large
RD-8421	Large	Large
RD-8431	Large	Large
RD-8441	Large	Large
RD-8451	Large	Large
RD-8461	Large	Large
RD-8471	Large	Large
RD-8481	Large	Large
RD-8491	Large	Large
RD-8501	Large	Large
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Freight Rates Moving Upward As Rising Costs Hit Cargo Lines

Slick planning to adjust tariffs; other independents may follow suit, but certificated carriers show no inclination to act pending results of CAB investigation.

By CHARLES ADAMS

Airfreight rates, which have lacked the parer inflation spiral for more than two years, are picking up.

Rising costs of gasoline, oil, wages and parts, which forces the certificated carriers to assume one per cent passenger tariff increases last year, have forced the independent cargo lines last winter to fall. One carrier estimates its costs have skyrocketed 24 percent in the last 90 days.

In New York Taft-Sheik, Airways, largest U.S. cargo carrier during the past two years, plans to boost its charges between two and three cents a ton mile, making an average revenue about 15 cents a ton mile. Since late fall, Sheik's gasoline costs alone have risen so markedly to add about one-half cent a ton mile to operating expenses.

Other uncertificated cargo lines, most of them far less able to stand deficit operations than Sheik, are expected to institute higher rates. But the certificated carriers have shown no inclination to move, and despite efforts to force the ruling commission that cargo freight air fare be cut.

► **UAL** More—Recently, United Air Lines early this month had a tariff supplement with CAB which would reduce its freight rates about 15 percent as certain commodities from West California cities to three Eastern points. Issues as to which the regulation would apply include agricultural products, aircraft parts, wiring apparel, auto mobile parts, drugs, electrical appliances, film and radio parts.

Last September and October, Sheik and other uncertificated cargo carriers moved into the black after asbestos deficits during, back to the time first openbom legions. Sheik's costs in October were 12.11 cents a ton mile, and revenues were 13.7 cents a ton mile.

► **Low Rates**—High-speed rail and freight in October was 89 percent. Sheik had little choice of increasing revenues per ton mile by boosting loads. Higher rates have become the only answer to juggling costs.

In the proceeding was concluded more than a year ago, but an estimator's report has not been issued. It is expected shortly.

► **East Bankrupt**—Several of the applicants in the subagent rate case have gone bankrupt since the hearings, and others are now practically bankrupt, conserving their capital pending the CAB decision. U.S. Air Lines, St. Louis based, Fla., and of the nation's largest, has been suspended. Eighteen bills have fallen and Sheik has a large part of its fleet at G-4.

As a result of testimony in the rate subagent hearings last month, it is expected that CAB will place some kind of floor under freight rates. The floor would limit the maximum of ton fall, which ranged down to 10 cents a ton mile.

► **Cost Allowances**—During hearings on the rate investigation, the Air Freight Association contended that it could be certified fares between 25 and 40 cents a ton mile to carry freight on an unaided cost basis. In contrast, average freight revenue reported by the association during negotiations in October was American 22.61 cents a ton mile, United 19.60 cents a ton mile, and TWA 12.32 cents a ton mile.

► **New Player**—Tyrol, The carrier has been making detailed studies of the Boeing Stratolights and cargo versions of the DC-9 and Constitution. If the freight loadorder is RLA, says Sheik, it would cost him three Stratolights at three Constitution.

Budget question must in Sheik's view affect all cargo carriers in the bat of their certificate applications on CAB's pending airfreight route map. Sheik's costs also have risen so markedly to add about one-half cent a ton mile to operating expenses.

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Domestic Carriers Reinstate DC-6s

Resumption of domestic service with modified DC-6s is slated to begin this week on American Airlines' transcontinental route (AVIATION WEEK, Feb. 16).

United Airlines is scheduled to institute DC-6 flights on its San Francisco-Mile-High route Mar. 21 and in its domestic option on Apr. 1. National plans resumption of DC-6 operations between New York and Miami on Mar. 25, and Braniff's target date will be announced early in April.

► **PAA Delivery**—Full restoration of domestic DC-6 service is expected by mid-April. Pan American Airways is slated to take delivery on at least two modified

DC-6s (for use by Panair) next month.

Ninety-seven DC-6s were grounded by the Federal Aviation November following the fire at Eighty-Eight, Utah, and an emergency landing at Gallup, N. M. Cost of the grounding to the airlines has been estimated at more than \$100,000,000. Douglas will bear modification expenses amounting between \$3 million and \$5 million.

► **Case of Mehigs-CAB**—Averaging of the two mehigs disclosed that ground which overflew while being transferred in flight between alternate airports left entered a other better air route scope under the heading. All DC-6s resuming service have had their air route scope adjusted to the leading edge of the wing, while the overflew route has been conducted to the wing's trailing edge.



RADAR EYE

Allow radar installations on plastic nose of DC-6s shows clearly the resulting antenna. This view is of a modified DC-6 used by Braniff Airways. Above, this gives a general view of obstacles as far as 315 miles ahead of plane regardless of weather conditions. Maintenance of 70th degree by Weather Modification Corp. (Wide World photo)

with an DC-3s, and Article 7 stipulates, carries, four DC-6s.

► **Business Peiges-Viking**, headed by R. R. Hirt, figures it has to be 12.14 cents to break even. Despite the attraction of fares approximately 25 percent lower than those of certificated lines, Viking says it is trying to avoid off-their passenger business.

Company officials state they are trying to build up long-haul contracts with construction firms and other companies for transporting employees and cargo.

Big Expansion Possible In Plane Utilization

Duly plane utilization by the airlines can be stepped up 90 percent in wartime when public consciousness of departure and arrival may be disregarded, according to American Airlines Board Chairman C. R. Smith.

A major general in the Army Air Transport Command during World War II, Smith said that in peacetime utilization of eight hours a day is usual, while in wartime this can be increased to 12 hours daily without great difficulty. Speaking to the National War College, Smith defined that plane for transportation during wartime must include assurance that one-third of the personnel and equipment of the planes used by the airlines will be immediately available for military service.



THREE-DIMENSIONAL IN FLIGHT

One of the first flight photos of the Braniff Regulator, twin-polar executive plane now undergoing CAA tests. Powered by two Continental 125 hp engines, its cruising speed is still to be 190 mph. Further passenger installation involving added executive facilities from the cockpit. (Braniff Contol photo)

Branch Proposes Probe of Feeders

Delayed by continued urgent requests from feeders for higher mail payments despite meager gains made during the past year, CAB Member H. B. Beach has called for an immediate investigation to determine whether two of the operations should be suspended.

Branch at present sees no case against continuation of additional local carriers. He dismissed from the action the Board's two-man majority in advocating the temporary mail rate of Tex-Tex Airways and Maessell Air Lines. He urged an investigation "in view of the extremely meager government subsidy to the very small amount of traffic being carried."

► **Mail Load Factor.** One of the first feeders to be scrutinized, Maessell started operations in November, 1946. Tex-Tex began service Oct. 11. Highest passenger load factor achieved by either carrier was Maessell's 25 percent last August.

Feeder mail pay has increased steadily since the original 25 cents a plane-mile rate for Pioneer Air Lines (then Eastern) in February, 1948. By October, 1948, the level for seven feeders was raised to 60 cents a plane-mile for their first 10 months of operations, with the rate declining 5 cents a month successively through month 35, ending at 35 cents a plane-mile base in August.

► **New Fugitive.** Tex-Tex recently asked for at least 70 cents a plane-mile rate at a 10 percent load factor, with the rate guaranteed downward to 50 cents a plane-mile for each one percent increase in load factor. CAB has now proposed lifting TTA's rate to a maximum of 90 cents a plane-mile for the period prior to July 1, 1949, if the carrier operates less than the basic two round trips daily in its system. After July 1, 1949, the subsidies of 5 cents a plane-mile in mail pay would come at lower intervals than the three monthly amounts set.

The CAB members found that Maessell's mail load factor should be revised to reflect the abnormal nature of the carrier's service, which is to the port-to-airport military. This "military" rate is (substantially) because of the concentration of heavy M&M cargo. At the Tex-Tex time, the Board lengthened the intervals between the 5-cent-a-mile downward adjustments.

Icelandic Airlines Bid

Icelandic Airlines (Lufthansa H. F.), Reykjavik, has asked CAB for a temporary air carrier permit to service cities Reykjavik to New York, and Chicago via Newfoundland and Canada.

CAB SCHEDULE

Mar. 18: Meeting on additional services to Mexico, Boston, and New York.
Apr. 5: Hearing on Aviation Macmillan Act Extension. Memphis, Atlanta, and New York.
June 14: Hearing on Cessna 170B aircraft mail rate case. (Docket 6042)

Nonscheduled Resumes Service After 33-Day Suspension

Am cargo and passenger service between Portland, Ore., and Alaska points has been resumed by General Air Cargo, Inc., after a 33-day suspension caused by CAB for illegal violations of Federal regulations.

A temporary suspension order issued against the company Jan. 28 at Anchorage, Alaska, was affirmed at a later hearing in Seattle and confirmed in a decision in Portland. The original suspension order applied to all services operated by the company, but on Feb. 5 it was modified to apply only to the Alaska service. The earlier order expired Feb. 29 and service was resumed Mar. 1.

► **Charge-It.** The exemption that had been



granted to the company had been

CARGO COMPUTER

McKinley Brownson, United Air Lines cargo specialist, has invented a "cargo stick" to automate airfreight packages. It enables cargo handlers to determine quickly the cubic dimensions of packages to refer to a logarithmic scale reproduction on the stick. A cargo attendant takes down the data as it is read off the scale stick. Use of the stick can reduce the time required for freight handlers to process packages in the fast throughput difficulties of determining cubic dimensions of shipments when, due to bulk, changes are caused on a basis of one pound for each 160 cu. in. of space used. Presently the use of the stick is a case of progress in the field of automation. The technique takes freight handling in the post last year as the rate of the shipper in estimating charges.

for CAB, the company was charged with operating services in winter conditions, which before the recent snows, carrying more passenger and mail cargo than declared is illegal, failing to maintain radio or visual contact with the Anchorage airport traffic control tower, carrying cargo improperly secured, failing to stay light signals showing names and addresses of passengers and scheduling pilots to fly in excess of eight hours during a 24-hr period.

In spite of these allegations, testimony at the Portland hearing revealed that the airline had operated 176 flights between Portland and Alaska without loss or injury to passengers or cargo.

In addition to the Portland-Alaska service, General Air Cargo operates planes between Portland and Utah and California points.

Higher Mail Payments Offered Colonial Airlines

Colonial Airlines has a brighter financial future after a net loss of \$917,711 and an operating loss of \$178,915 in domestic service in 1948. CAB has moved to increase mail payments 75 percent retroactive to Jan. 1.

A Bureau of Air Commerce order would limit Colonial's temporary mail rate on its U.S. and Canadian links from the 20 cents a plane-mile received last year to 15 cents a plane-mile. The carrier received \$726,993 to mail pay in 1947, and the new rate would yield around \$1,000,000 in 1948. Colonial asked for mail payment at 50 cents a plane-mile.

The increased temporary rate will not to provide Colonial with immediate financial assistance and to prevent disruption of its working capital. Later, CAB will fix a permanent rate, retroactive to Apr. 15, 1949, which is expected to cut deficits experienced since that date.

Services Consolidated

Challenger Airlines and Monarch Air Lines have agreed to combine their traffic and sales divisions under the direction of Gerald S. Kehler, general traffic and sales manager of M&M. Officials of the beiden and the monorail world expect greater economies, more efficiency and better service.

Parcel Post Extended

International air parcel post service has been extended to Portugal and the Azores in addition to the 21 countries announced last week (Aviation Week, Mar. 8).

AVIATION WEEK, March 15, 1948

Industry Endorses Congressional Study

Airline top executives urge prompt implementation of latest air policy report.

The air transport industry has received the Congressional Aviation Policy Board's report (Aviation Week, Mar. 11) with the same enthusiasm that marked earlier endorsement of the study made by the President's Air Policy Commission early in January.

Promotion and adoption of the recommendations in this case now made by U.S. domestic and international air transport carriers. The Congressional group already is considering possible legislation, and will invite comments from CAB, CAA and other interested government agencies.

► **Lead Committee.** Air Transport Association President Ernest S. Lord said that while one may not agree with every finding of the Congressional Board, the report in a whole is an admirable guide to U.S. policy. "If the principles embodied in the report are followed, and the recommendations implemented as soon as practicable, America will be in peace in the air as in peace on land as in war," Lord declared. Senator Price for the Board's sub-committee Wayne L. Morse, TWA board chairman.

Using different language, but with equal fervor, the Bureau of Air Commerce urged the Presidential Air Policy Commission's call for a strong domestic and international commercial air transport service which will be immediately available in the event of national emergency.

The Congressional report and that "U.S. air commerce should be funded and promoted by whatever means appear most practical and it makes each citizen an air passenger and cargo carrier in the course of his daily life" is the basic goal of the national defense establishment.¹ It added that civil and military aviation are inextricably interwoven into American air strength.

► **Development Funds.** A recommendation by the President's Commission that the government should finance development of commercial planes which could be used by the armed services in wartime was warmly endorsed by the Congressional group. Funds would be allocated to the Air Force and earmarked for that specific purpose.

"Transport aircraft of maximum performance and efficiency characteristics than any now being built are needed to provide the low operating cost and high performance that will make possible government employment

of large numbers of aircraft. As the government is vitally concerned in the existence of a large fleet of modern aircraft, it is in the interest of economy that the government finance the design and building of such planes, while leaving the carriers free to buy the production aircraft and pay for them by commercial terms from commercial contractors."

► **Planning Board.** The Congressional report urged that a Civil Air Transport, Research and Development Board (similar to the setup prepared by the President's Commission) should be prepared. It would consist of representatives of the Air Force, the Navy, other government agencies concerned with transportation, the aircraft manufacturing industry and the airlines. This board would be charged with drawing up specifications and developing prototypes of the new transports.

It was suggested that long contracts be prepared now for wartime production by the armament plants of all U.S. manufacturers, placing orders internationally, except for those species controlled by the Department of National Defense. Form contracts would also be prepared for wartime utilization of a percentage of domestic airline aircraft.

The Congressional group saw an obligation by the airlines to provide such



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